

Appl. No. 10/017,513
Response dated August 24, 2005
Reply to Office action of August 16, 2005

Applicant has carefully considered the examiner's description of the operation of Shinohara et al. and the rejections based on this operation. Applicant believes however that the examiner has misinterpreted the teachings of the reference as would be known to the person of ordinary skill in the art.

The examiner rejected claims 1, 4, 7-8 and 11-12 under 35 U.S.C. 102(e) as being anticipated by Shinohara et al. U.S. Patent 6718217. The examiner points to Shinohara as disclosing "... further the change-over switch [15] reads on a selector, the combined functions of the coupling D/A converter (20), the A/D converter (25) and the analyzer (30), reads on a signal processing section; the display (40), the printer (45) and speakers (56/57), wherein one is inherently a right speaker and left speaker (wherein, indicates distinct known forms) indicates the plurality of output circuits; ... and the loudspeakers constitutes as audible monitoring of the processed signal" (paragraph 3, page 2 of office action). Applicant believes this interpretation of Shinohara is inconsistent with the teachings to the person of ordinary skill found therein.

In Shinohara the output of switch 15 is D/A converted by 20, A/D converted by 25 and coupled to analyzer 30 (column 4, line 42-64). The analyzer 30 performs various analysis of the auditory quality of the signal. The controller 35 operates "for storing the inputted digital signal and the analyzed results by the digital signal processors 32, 33 in a hard disk 41, a solid-state memory 42 or a floppy disk 43" (column 5, lines 33-36). "The digital signal inputted into the analyzer 30 is sampled for a suitable time length. The sampled digital signal is converted from digital audio format to an operating format by the interface 31 and then stored in the hard disk 41, the solid-state memory 42 or the floppy disk 43 by the controller 35 and at the same time inputted into the digital signal processors 32, 33" (column 5, line 61 - column 6, line 1). "The data of the operational result [of processors 32, 33] is stored in the hard disk 41, the solid-state memory 42 or the floppy disk 43

Appl. No. 10/017,513
Response dated August 24, 2005
Reply to Office action of August 16, 2005

through the controller 35, and displayed on the display 40 through the graphic controller 34 or recorded on recording paper by the printer 45" (column 7, lines 49-53). "The digital signal called out of the hard disk 41 ... is converted from an operating format to a digital audio format by the interface 31 and outputted from the analyzer 30. This digital signal is inputted into the digital-analog converter 50 and converted into an analog signal by the digital-analog converter 50. Energy of this analog signal is amplified by the amplifier 55 and released as a sound wave by the speakers 56, 57" (column 7, line 62 – column 8 line 3).

Accordingly, the audio signal from the selector 15 is stored in one of the memory devices and also analyzed by 30 with the results of the analysis also being stored in one of the memory devices. The stored audio is called out of the respective memory device and fed to the speakers whereas the results of the analysis (a separate data signal) are fed to the monitor 40 and/or printer 45. There are thus three sets of digital data involved, the input signal from 15 (via 20 and 25), the stored version of the input signal from 15 (via one of the memory devices) and the data results of the analysis (via 30 and memory). It is noted that this data from 30 is not the input signal data from 15 or the stored version thereof, but is related to those qualities determined by the analysis by 30.

Applicant's Claim 1, element c) calls for "a signal processing section responsive to process said selected signal of b) [the output of change-over switch 15 per the examiner's rejection] to provide a processed signal." The data from 30 which is stored in the memory is only output to the display 40 and printer 45, but not the speakers 56 & 57. Assuming arguendo this data is considered as the processed signal of element c), it might be considered to be output as in element d) or monitored as in element e), but not both.

Appl. No. 10/017,513
Response dated August 24, 2005
Reply to Office action of August 16, 2005

Assuming arguendo the processed signal is considered to be the stored input signal from memory, it is only output via the speakers, which could meet element e) of claim 1, but then there is nothing to meet element d).

Assuming arguendo the stored input signal from memory is considered as the processed signal output via the speakers as in element d), then element e) is missing.

Simply put, the processed signal of claim 1 element c) is recited in element d), and element d) requires a plurality of output circuits to output the processed signal in distinct known form. Either or both of the processed signal of element c) or the selected signal of element b) is recited in element e) to provide audible and/or visible monitoring thereof. Claims 4, 7 and 8 have similar limitations.

The examiner also mischaracterizes other aspects of the teachings of Shinohara. At the bottom of page 2 of the office action the examiner states "... speakers (56/57) wherein one is inherently a right speaker and left speaker (wherein, indicates distinct known forms) indicates the plurality of output circuits" A similar assertion was also made in the rejection over Asakura in the 1/25/05 office action where Asakura shows left, center, right, left surround, right surround and low frequency portions of an audio signal (i.e. 5.1 channel audio). Applicant pointed out in the 2/07/05 response to that office action that those 6 multiple channels of Asakura should be properly interpreted as portions of only 1 claimed signal in view of applicant's lexicography. Applicant's prior response to this position by the examiner regarding 6 portions of Asakura's input signal is appropriate in respect to the examiner's current position regarding left and right portions of Shinohara's signal and is incorporated herein by reference. A portion of that response is reproduced below:

Appl. No. 10/017,513
Response dated August 24, 2005
Reply to Office action of August 16, 2005

One of ordinary skill in the art would understand that the 6 channels 50L, 50C, 50R, 50LFD, 50SL and 50 SR are but components of the selected one of the input signals 16-19. These six channels are often referred to as 5.1 channel audio, which is pointed to in Applicant's disclosure for example at line 21 of page 8 through line 1 of page 9. Applicant believes this definition of the 6 channels of one audio signal is the proper interpretation of the operation of Asakura and the interpretation is confirmed by the examiner as pointed out above. Additionally this is the interpretation of "input signal" utilized by applicant in applicant's disclosure. Again, see for example page 8, line 21 through page 9, line 1 of the specification "It will be recognized that each or any of these input signals may carry multiple audio signals, examples including two channel stereo, four channels for example consisting of four surround channels or two stereo channels in two languages or 5.1 channel Dolby™ surround sound."

Consequently, applicant, as his own lexicographer, defines each of the "input signals" as used in the specification and claims as signals which may be comprised of two stereo channels or may be comprised of 5.1 surround sound channels, etc. and applicant believes that pointing to separate left and right outputs as meeting the claims limitation of "distinct known form" or "plurality of output circuits" is improper.

With respect to the rejection of claims 7 and 8 given on page 3 of the office action, the remarks immediately above regarding the processed signal relative to elements d) and e) and left and right channels being one signal are incorporated by reference.

Regarding the rejection of claim 11 given on page 3, applicant again points out that the digitized signal output from the analyzer is a different signal than the analog signal output by the speakers. Claim 11 calls for "said processed signal is output in analog form and at least two digital

Appl. No. 10/017,513
Response dated August 24, 2005
Reply to Office action of August 16, 2005

forms which are distinct by virtue of having different clock rates." The examiner points to two different signals in different forms whereas the claim calls for one signal in at least three different forms, one analog and two digital. Similarly, claim 12 also calls for one signal in at least three different forms.

The examiner rejected claims 2-3, 5-6 and 9-10 under 35 U.S.C. 103(a) as being unpatentable over Shinohara. The examiner has stated that Shinohara "obviously indicates using parameters established in manufacture" but fails to point to how those parameters meet the claim language, and in particular that of automatic operation in response to at least one signal present on one of the inputs. For example claim 2 specifies "wherein said elements b) and c) operate in response to said parameters such that the selecting of b) and/or the processing of c) may automatically change in response to at least one signal present on one said input of a)." Similar limitations are found in claims 5 and 9.

The examiner also states it would be obvious to modify Shinohara to add the mixer claimed in claims 3, 6 and 10 for the purpose of mixing together two different audio signals and/or sounds for the purpose of the enhancing the sound effects of audio signal output. The examiner has not pointed to where in Shinohara the suggestion or motivation to make this modification is found. Applicant does not find any suggestion in Shinohara that it is desired to have or enhance sound effects on the output. Assistance by the examiner is respectfully requested if applicant has missed this suggestion.


In that Shinohara operates to analyze the auditory quality of the signal which is selected to be input to analyzer 30, any mixing of signals would adversely affect, if not totally prevent, such analysis. Consequently applicant believes that Shinohara actually teaches away from modification

Appl. No. 10/017,513
Response dated August 24, 2005
Reply to Office action of August 16, 2005

to include a mixer as that inclusion would affect the auditory quality of the analyzed signal and thus defeat the purpose of Shinohara.

In that the application is believed in form for allowance, further action in that respect is respectfully solicited.

Respectfully Submitted,



J. Carl Cooper
Reg. 34,568
(775) 831-6123

I hereby certify that this correspondence is being facsimile transmitted to the U.S. Patent and Trademark Office, Fax No. (571) 273-8300 on August 24, 2005.



J. Carl Cooper